Improvements to Princeton-Hightstown Rd (CR 571) Cranbury/Wallace Rd to Clarksville Rd. Township of West Windsor, NJ

Presented by:
Mercer County Engineering & DVRPC

In Association with:
The Louis Berger Group, Inc.

Tuesday, December 15, 2009
Purpose of Meeting

- Notification of Property Owners, Residents, & Stakeholders
  - Involvement of residents, businesses, community groups, and local officials in the design process.
  - To solicit input from all parties.
- Explain roadway network deficiencies:
  - Higher than average vehicular crash rates.
  - Inconsistent roadway cross section.
  - Missing links of sidewalk and curb.
- Recognition of
  - Previous Concept Developed.
  - Ongoing development in the area.
- Presentation of the conceptual plans.
- Explain the Environmental Review Process

Preliminary Cross Section for Route 571
Project Area
Existing Roadway Conditions

Poor Roadway Facilities

Variable pavement widths
Existing Roadway Conditions

Lack of Pedestrian/Bicycle Amenities

Discontinuous Sidewalks

Lack of Shoulder for Bike Usage
Completed Work Tasks

1. Data Collection
   - Review of Townships Master Plan
   - Existing/Proposed Site Development Applications
2. Traffic Investigation
   - Performed Traffic Counts
   - Performed Accident Analysis & Capacity Analysis
3. Field Survey
   - All Existing Topographical Conditions
   - Performed Wetland Locations survey
4. Development of Concept Plan
   - Met with County, Township & NJDEP (Green Acres)
   - Prepared Needs Assessment Report
5. Developed Draft Environmental Documents
   - Hazardous Waste Screening
   - Cultural Resources Investigation
6. Initiated Green Acres Process
Project Area Findings

- **Traffic Conditions**
  - CR 571 Peak Hours from 7:30 – 8:30 AM and 5:30 – 6:30 PM
  - Average Weekday (2-Way) Traffic Volume
    - Approx 17,300 vehicles/day
  Operating Conditions are fair through the project area
    - Existing Level of Service is “D” in both morning & evening peak
    - Future 2028 Level of Service is “F” in both morning & evening peak

- **Roadway Elements and Cross Section**
  - Incomplete Curb and Sidewalks.
  - Shoulder width varies
  - Poor Horizontal Geometry

- **Crash Rates**
  - Over the 3-year period from 2005 to 2007 there were 154 crashes through the project corridor.
  - Crash rate is over 50% higher than the state average for a similar facility.
Project Area Findings (con’t)

- High crash locations include
  - Wallace/Cranbury Road
  - Alexander Road
  - Clarksville Road

- Most common crash types
  - Rear-end – 46%
  - Side-swipe – 17%
  - Left Turn – 15%
Existing Roadway Conditions

Location of Substandard Horizontal Curves
Corridor Constraints

1. Getty Service Station
2. Princeton Microfilm Corp
3. 50 Hightstown Rd
4. Sunoco Service Station
5. Shell Service Station
6. Exxon Service Station
7. Ronald R. Roger Arboretum

- Potential Hazardous Waste Site
- Green Acres Encumbered Property
Project Goals

**Improve Roadway Conditions**
- Provide a consistent roadway cross section with shoulders/bike lanes.
- Improve safety by correcting intersection alignment deficiencies and sight distance issues.
- Improve circulation by providing adequate curb radii at intersections along the corridor.
- Provide dedicated turning lanes at main intersection approaches along the corridor.
- New curbs to stabilize roadway edge and carry storm water to storm water system.
Project Goals (con’t)

- **Improve Pedestrian and Bicycle Amenities**
  - Provide opportunities for pedestrian traffic by providing sidewalk on both sides of the roadway
  - Provide crosswalks to accommodate pedestrian movements
  - Provide paved shoulders throughout the corridor for bike usage.

- **Improve Roadway Aesthetics**
  - Provide aesthetic improvements, by improving the general appearance of intersections along the corridor including paving the roadway, adding curb, new pavement markings and signage and new sidewalks.
Development of Concept Plan

- Developed roadway layout to address safety and service issues with the existing roadway and minimize impacts.
- Reviewed Township Master Plan to address vehicular, bicycle, and pedestrian circulation as well as aesthetics.
- Discussed needs with Township & County staff including:
  - Township Community Director
  - County & Township Engineer

Three (3) Alternatives considered for development

- **Alternative 1** – 12-foot lanes and six-foot shoulder for each traffic direction with two-way left turn lane. Alignment follows the existing alignment but introduces modifications to correct substandard features.
- **Alternative 2** – Same conditions as Alternative 1 however proposed alignment impacts the Ronald R. Rogers Arboretum at the corner of Clarksville Road and Hightstown Rd
- **Alternative 3** – No modifications to the roadway corridor.
Typical Roadway Cross Section
- Categorical Exclusion Documentation (CED) to comply with the National Environmental Policy Act (NEPA)
- Compliance with Section 106 of the National Historic Preservation Act
- Potential Section 4(f) evaluation for impact to Arboretum property
- Potential State House Commission Approval for minor diversion of Green Acres Property
Alternative Analysis – Impacts to Arboretum

Alternative 1

Alternative 2
Next Steps

- Review of public comment and revisions to Concept Plan.
- Complete the Environmental Review Process.
- Complete Preliminary Design.
- NJDEP Land Use Permits.
Questions